

STATE OF INDIANA

DEPARTMENT OF LOCAL GOVERNMENT FINANCE



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TO: Assessing Officials

FROM: Barry Wood, Assessment Division Director *BW*

RE: 2013 Ratio Study Guidance

DATE: January 7, 2013

The purpose of this memorandum is to provide guidance to assessing officials regarding changes in the ratio study review process by the Department of Local Government Finance ("Department") for the 2013 assessment year. The guidance is similar to last year's guidance, with a few minor changes. The first section describes the 2013 ratio study process in conjunction with the 2013 annual adjustment ("trending") process. The second section details changes to the ratio submission format. These changes are described in more detail in the attached 2013 Ratio Study Format document.

2013 Annual Adjustment

As in prior years, the Department requires each county assessor to have an approved ratio study prior to submitting 2013 certified assessed values to the County Auditor. Per IC 6-1.1-5-14, the county assessor must deliver the real estate book (i.e., roll 2013 pay 2014 gross assessed values and balance) to the county auditor by July 1, 2013. Although there is no statutory date for submission of the county's ratio study, **to ensure on-time billing for 2013 pay 2014, it is highly recommended the ratio study be submitted by May 1, 2013.** Additionally, a county's ratio study will not be reviewed until all datasets are compliant, particularly the Sales Disclosure Data File (50 IAC 27-9-1).

As part of the annual adjustment process, values in the ratio study are set using local market data such as the sale price of comparable properties. **If necessary, further adjustment based on local market data ("trending") may be performed to meet ratio study standards. However, the purpose of the 2013 annual adjustment process is to value properties at their market value-in-use, as indicated by compliance with ratio study standards. If this goal is met without trending, no further adjustment is necessary.**

RATIO STUDY SUBMISSION BY COUNTY

It is highly recommended that the county conduct an internal ratio study before submitting its ratio study to the Department. If an internal ratio study is completed, please forward a copy to the Department. A narrative detailing the county's annual adjustment process, and a

“Workbook,” should be included with the county’s ratio study submission. The “Workbook” should contain data for each parcel of real property (e.g., state assigned parcel number, prior year land AV, current year land AV, prior year improvement AV, current year improvement AV, proposed adjustment [“trending”] factor [2 columns – one for land, one for improvements], etc.). An example of a sample “Workbook” can be found at http://www.in.gov/dlgf/files/Sample_Workbook.xls . **Ratio studies will not be reviewed until a complete and compliant file is submitted.**

ASSESSMENT DATE AND VALUATION DATE

- The assessment and valuation date are both March 1, 2013. All real property should reflect characteristics as of this date.
- Depreciation should also be applied relative to March 1, 2013. If an adjustment is necessary, and depreciation has not been updated as part of the annual adjustment process, the adjustment factor may need to be revised to take into account increased depreciation from the 2012 General Reassessment.
- **Note: The cost tables are updated on an annual basis (see <http://www.in.gov/dlgf/files/121031> - Wood Memo - [Release of Updated Cost Information for 2013 Annual Adjustment.pdf](#) and <http://www.in.gov/dlgf/files/121214> - Wood Memo - Cost Errata memo.pdf). Some of the cost values, for example GCK and some agricultural buildings, saw a significant change. Additionally, depreciation should also be updated on an annual basis. The Department expects to update the Depreciation Schedule for the 2014 annual adjustment.**

PARCEL CHARACTERISTICS

All properties must be assessed based on their characteristics as of March 1, 2013.

RATIO STUDY REVIEW STANDARDS

The Department will review all ratio studies for the 2013 annual adjustment according to the guidelines set forth in the 2007 *IAAO Standard on Ratio Studies*. The 2013 ratio study review process is unchanged from the Department’s guidance on sales review and ratio study analysis for 2011 – see <http://www.in.gov/dlgf/files/110111> - Wood Memo - [2011 Ratio Study Review Process and Annual Adjustment Guidance.pdf](#).

Sales Window:

The assessing official must use sales of properties from the period of time from January 1, 2012 to March 1, 2013 for the March 1, 2013 assessment date (see the 2011 [*sic* 2012] Real Property Manual - http://www.in.gov/dlgf/files/Adopted_2011RealPropertyAssessmentManual.pdf). A longer time period may be required to produce a representative sample in some counties;

however, no more than 5 years of sales may be used in the ratio study. Older sales must be time adjusted if appropriate in accordance with methods prescribed in the *2007 IAAO Standard on Ratio Studies*.

Multiple Sales Years

Similar to the 2012 assessment process, counties may use sales older than one year in one township without expanding the sales window for other townships. However, time adjustments for older sales must be performed using all comparable older sales, including those sales whose inclusion in the ratio study is not necessary because of sufficient current sales. This will promote equity among townships with different sales windows without requiring the addition of older sales in townships where they are not needed for assessment purposes.

For example, Adams Township has sufficient 2012 sales but Boone Township does not. The sales window is expanded to 2011 sales for Boone Township. The county does not need to expand the sales window to 2011 sales for Adams Township. However, the county should use comparable 2011 and 2012 sales from both Adams and Boone Townships to determine whether a time adjustment is necessary for the 2011 sales used in Boone Township.

Sales Chasing:

Appendix D of the *2007 IAAO Standard on Ratio Studies* lists four methods that oversight agencies may use to detect sales chasing. Of these, the Department primarily uses the Mann-Whitney test outlined in D.1: Comparison of Average Value Changes. In *Mass Appraisal of Real Property*, Robert Gloudemans notes that:

When calculating average value changes, new parcels and parcels that have undergone a change in use or physical change (such as additions or renovations) should be excluded (p. 311 – 312).

In prior years, the Department has excluded these parcels from its analysis. In 2012, because of the general reassessment and the large number of properties whose assessed value changed from reassessment activity rather than or in addition to market conditions, the Mann-Whitney test was not used. However, the Mann-Whitney test will be utilized for the 2013 annual adjustment process for detecting sales chasing.

Ratio Study Format

The ratio study format is fully described in the attached memo. The following is a brief summary: the format itself is unchanged from 2012.

As in prior years, ratio studies must be submitted in a spreadsheet compatible with Microsoft Excel 2007. The spreadsheet must contain one tab with ratio study data for each of the following types of property:

- Industrial Vacant

- Industrial Improved
- Commercial Vacant
- Commercial Improved
- Residential Vacant
- Residential Improved

In addition, the study should contain a *Summary* tab detailing the number of sales used and ratio statistics in each section of the ratio study.

For the 2013 annual adjustment, all ratio studies submitted to the Department must also include two additional tabs. The first tab is called *Formatted*. This tab must contain the ratio study data located in the other six tabs in a format readable by the SPSS software program. This format is fully described in the attached memo. This formatting can be done in Excel or another program.

Note: The SPSS software program is not needed to produce the formatting.

Because of the way the SPSS software reads the data, only one parcel from a multi-parcel sale can be included in the *Formatted* tab. To fix this, the ratio study should also include a second tab called *MultiParcelSales*. This tab will list all the data for each parcel in each multiple parcel sale included on the *Formatted* tab.

Adding these tabs will make the review process more efficient and should result in a faster approval time. In 2012, the average approval time for a ratio study (after data compliancy and a complete file was submitted) was 6.93 days. While calculating ratio statistics by hand is time consuming, a software program like SPSS can perform these calculations very quickly. Listing multi-parcel sales in a separate tab will also make it easier to reconcile the sales used in the ratio study with the sales disclosure data reviewed by the Data Division.

The ratio study format is described in detail in the attached document.

Questions on this memo may be directed to Barry Wood, Assessment Division Director, at bwood@dlgf.in.gov or (317) 232-3762 or David Schwab, Senior Statistician/Application System Analyst, at dschwab@dlgf.in.gov or (317) 234-5861.